

SEQUENCE LISTING

<110> Falco, S. Carl
Famodu, Omolayo O.
Klein, Ted
Orozco, Emil M. Jr.
Rafalski, J. Antoni
Shen, Jennie
Cahoon, Edgar B.
Sakai, Hajime

<120> Plant Proteinases

<130> BB1336 US NA

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<150> 60/119,599

<151> 1999-February-10

<160> 56

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<211> 304

<212> DNA

<213> Zea mays

<220>

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<212> PRT
<213> Zea mays

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Lys Ala Tyr Ala Lys His Gly Ser Tyr Glu Ala Leu Glu Gly Gly
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Leu Val Gln Asp Ala Leu Val Asp Leu Thr Gly Gly Ala Gly Glu Glu
35 40 45

Ile Asp Met Arg Ser Pro Gln Ala Gln Leu
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<211> 423
<212> DNA
<213> Oryza sativa

<220>
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cattgttcaaa nggacatgnc cttactctnaa ttttgcaggg taaaagnagaa agtttgaatg 360
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<212> PRT
<213> Oryza sativa

<220>
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<222> (34)

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Leu His Gly Ser Tyr Glu Ala Leu Glu Gly Gly Leu Val Gln Asp Ala
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Leu Xaa Asp Leu Thr Gly Gly Ala Gly Glu Glu Ile Asp Met Arg
35 40 45

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<212> DNA
<213> Glycine max

<220>
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<212> PRT
<213> Glycine max

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Ser Tyr Glu Ala Leu Glu Gly Gly Leu Val Gln Asp Ala Leu Val Asp
20 25 30

Leu Thr Gly Gly Ala Gly Glu Glu Ile Asp Met Arg Ser Gly Glu Ala
35 40 45

Gln Ile
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<212> DNA
<213> Zea mays

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<210> 8
<211> 337
<212> PRT
<213> Zea mays

<400> 8
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Val Ser Ile Leu Glu Lys Ala Tyr Ala Lys Leu His Gly Ser Tyr Glu
20 25 30
Ala Leu Glu Gly Gly Leu Val Gln Asp Ala Leu Val Asp Leu Thr Gly
35 40 45
Gly Ala Gly Glu Glu Ile Asp Met Arg Ser Pro Gln Ala Gln Leu Asp
50 55 60
Leu Ala Ser Gly Arg Leu Trp Ser Gln Leu Leu His Phe Lys Gln Glu
65 70 75 80
Gly Phe Leu Leu Gly Ala Gly Ser Pro Ser Gly Ser Asp Ala His Ile
85 90 95
Ser Ser Ser Gly Ile Val Gln Gly His Ala Tyr Ser Ile Leu Gln Val
100 105 110

Arg Glu Val Asp Gly His Lys Leu Ile Gln Ile Arg Asn Pro Trp Ala
 115 120 125
 Asn Glu Val Glu Trp Asn Gly Pro Trp Ser Asp Ser Ser Pro Glu Trp
 130 135 140
 Thr Glu Arg Met Lys His Lys Leu Met His Val Pro Gln Ser Lys Asn
 145 150 155 160
 Gly Val Phe Trp Met Ser Trp Gln Asp Phe Gln Ile His Phe Arg Ser
 165 170 175
 Ile Tyr Val Cys Arg Val Tyr Pro Pro Glu Met Arg Tyr Ser Val His
 180 185 190
 Gly Gln Trp Arg Gly Tyr Asn Ala Gly Gly Cys Gln Asp Tyr Asp Ser
 195 200 205
 Trp His Gln Asn Pro Gln Tyr Arg Leu Arg Val Thr Gly Arg Asp Ala
 210 215 220
 Leu Tyr Pro Val His Val Phe Ile Thr Leu Thr Gln Gly Val Gly Phe
 225 230 235 240
 Ser Arg Lys Thr Asn Gly Phe Arg Asn Tyr Gln Ser Ser His Asp Ser
 245 250 255
 Ser Met Phe Tyr Ile Gly Met Arg Ile Leu Lys Thr Gln Gly Cys Arg
 260 265 270
 Ala Ala Tyr Asn Ile Tyr Met His Glu Ser Ala Gly Gly Thr Asp Tyr
 275 280 285
 Val Asn Ser Arg Glu Ile Ser Cys Glu Leu Val Leu Asp Pro Tyr Pro
 290 295 300
 Lys Gly Tyr Thr Ile Val Pro Thr Thr Ile His Pro Gly Glu Ala
 305 310 315 320
 Pro Phe Val Leu Ser Val Phe Ser Lys Ala Ser Ile Arg Leu Glu Ala
 325 330 335
 Val

<210> 9
 <211> 1670
 <212> DNA
 <213> Oryza sativa

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 gcaagatgt ctatgttgc tcacaggagg agctggtaa gagattgaca tgccgagccc 180
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ctgtcggtt tatccacccg agatgcgtta ctctgtccat ggccaatggc gtgggtatag 600
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<210> 10
 <211> 338
 <212> PRT
 <213> Oryza sativa

<400> 10
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Trp Val Ser Ile Leu Glu Lys Ala Tyr Ala Lys Leu His Gly Ser Tyr
 20 25 30

Glu Ala Leu Glu Gly Gly Leu Val Gln Asp Ala Leu Val Asp Leu Thr
 35 40 45

Gly Gly Ala Gly Glu Glu Ile Asp Met Arg Ser Pro Gln Ala Gln Ile
 50 55 60

Asp Leu Ala Ser Gly Arg Leu Trp Ser Gln Leu Leu His Phe Lys Gln
 65 70 75 80

Glu Gly Phe Leu Leu Gly Ala Gly Ser Pro Ser Gly Ser Asp Ala His
 85 90 95

Ile Ser Ser Ser Gly Ile Val Gln Gly His Ala Tyr Ser Ile Leu Gln
 100 105 110

Val Arg Glu Val Asp Gly His Lys Leu Val Gln Ile Arg Asn Pro Trp
 115 120 125

Ala Asn Glu Val Glu Trp Asn Gly Pro Trp Ser Asp Ser Ser Gln Glu
 130 135 140

Trp Thr Glu Arg Met Lys His Lys Leu Lys His Val Pro Gln Ser Lys
 145 150 155 160

Asn Gly Val Phe Trp Met Ser Trp Gln Asp Phe Gln Ile His Phe Arg
 165 170 175

tcgggggtt tattgtgtac ataaaaaatt ggtactatag gggtataactt gtaaccattt 1320
aagcaaagt gaaaaagaaa tagctaaaa taagtaggaa attactaaca cctgggtcaa 1380
tggaggtaag gacgggtgtgg ggaggatag taacaaggcat tgagtactg attgtaaatt 1440
cagttgcgtt ttgacaaact gcaaaaaatt gtacaaacat taacaattat cagttccat 1500
caaaaaaaaaaaaataac tcgagggggg gccgtaccaa atcttcccg 1550

<210> 12
<211> 335
<212> PRT
<213> Glycine max

<400> 12
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Ile Leu Glu Lys Ala Tyr Ala Lys Leu His Gly Ser Tyr Glu Ala Leu
20 25 30

Glu Gly Gly Leu Val Gln Asp Ala Leu Val Asp Leu Thr Gly Gly Ala
35 40 45

Gly Glu Glu Ile Asp Met Arg Ser Gly Glu Ala Gln Ile Asp Leu Ala
50 55 60

Ser Gly Arg Leu Trp Ser Gln Leu Leu Arg Phe Lys Gln Glu Gly Phe
65 70 75 80

Leu Leu Gly Ala Gly Ser Pro Ser Gly Ser Asp Val His Ile Ser Ser
85 90 95

Ser Gly Ile Val Gln Gly His Ala Tyr Ser Ile Leu Gln Val Arg Asp
100 105 110

Val Asp Gly His Lys Leu Val Gln Ile Arg Asn Pro Trp Ala Asn Glu
115 120 125

Val Glu Trp Asn Gly Pro Trp Ser Asp Ser Ser Pro Glu Trp Thr Asp
130 135 140

Arg Ile Lys His Lys Leu Lys His Val Pro Gln Ser Lys Asp Gly Ile
145 150 155 160

Phe Trp Met Ser Trp Gln Asp Phe Gln Ile His Phe Arg Ser Ile Tyr
165 170 175

Ile Cys Arg Ile Tyr Pro Ser Glu Met Arg His Ser Val His Gly Gln
180 185 190

Trp Arg Gly Tyr Ser Ala Gly Gly Cys Gln Asp Tyr Asp Thr Trp Asn
195 200 205

Gln Asn Pro Gln Phe Arg Leu Thr Ser Thr Gly Gln Asp Ala Ser Phe
210 215 220

Pro Ile His Val Phe Ile Thr Leu Thr Gln Gly Val Gly Phe Ser Arg
225 230 235 240

Thr Thr Ala Gly Phe Arg Asn Tyr Gln Ser Ser His Asp Ser Gln Met
245 250 255

Phe Tyr Ile Gly Met Arg Ile Leu Lys Thr Arg Gly Arg Arg Ala Ala
260 265 270

Phe Asn Ile Tyr Leu His Glu Ser Val Gly Gly Thr Asp Tyr Val Asn
275 280 285

Ser Arg Glu Ile Ser Cys Glu Met Val Leu Glu Pro Glu Pro Lys Gly
290 295 300

Tyr Thr Ile Val Pro Thr Thr Ile His Pro Gly Glu Ala Ala Pro Phe
305 310 315 320

Val Leu Ser Val Phe Thr Lys Ala Ser Ile Thr Leu Glu Ala Leu
325 330 335

<210> 13

<211> 505

<212> DNA

<213> Oryza sativa

<220>

<221> unsure

<222> (120)

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<222> (283)

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<222> (479)

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tgcataatgtt gatgtatgac taacgcctt agctatcttt taaaatccgg tggcctttag 420
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<210> 14

<211> 167

<212> PRT

<213> Oryza sativa

<220>

<221> UNSURE

<222> (40)

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Arg Arg Ala Tyr Leu Gly Leu Arg Thr Ser Arg Arg Ala Phe Leu Arg
20 25 30
Gly Leu Gly Gly Ser Ala His Xaa Ala Pro Val Leu Pro Thr Asp Gly
35 40 45
Leu Pro Asp Asp Phe Asp Trp Arg Asp His Gly Ala Val Gly Pro Val
50 55 60
Lys Asn Gln Gly Ser Cys Gly Ser Cys Trp Ser Phe Ser Ala Ser Gly
65 70 75 80
Ala Leu Glu Gly Ala Asn Tyr Leu Ala Thr Gly Lys Met Xaa Val Leu
85 90 95
Ser Glu Xaa Gln Met Val Asp Cys Asp His Glu Cys Asp Ser Ser Xaa
100 105 110
Pro Asp Ser Cys Asp Ala Gly Cys Asn Gly Gly Leu Met Thr Asn Ala
115 120 125
Phe Ser Tyr Leu Leu Lys Ser Gly Gly Leu Glu Ser Glu Lys Asp Tyr
130 135 140
Pro Tyr Thr Gly Arg Asp Gly Thr Cys Lys Phe Asp Lys Ser Xaa Ile
145 150 155 160
Val Thr Ser Val Gln Asn Phe
165

<210> 15
<211> 717
<212> DNA
<213> Triticum aestivum

<220>
<221> unsure
<222> (342)

<220>
<221> unsure
<222> (634)

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<211> 209
<212> PRT
<213> Triticum aestivum

<220>
<221> UNSURE
<222> (114)

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Gly Lys Met Glu Val Leu Ser Glu Gln Gln Leu Val Asp Cys Asp His
20 25 30

Glu Cys Asp Pro Ala Glu Pro Asp Ser Cys Asp Ala Gly Cys Asn Gly
35 40 45

Gly Leu Met Thr Ser Ala Phe Ser Tyr Leu Leu Lys Ser Gly Gly Leu
50 55 60

Glu Arg Glu Lys Asp Tyr Pro Tyr Thr Gly Lys Asp Gly Thr Cys Lys
65 70 75 80

Phe Glu Lys Ser Lys Ile Ala Ala Ser Val Gln Asn Phe Ser Val Val
85 90 95

Ala Val Asp Glu Glu Gln Ile Ala Ala Asn Leu Val Lys Tyr Gly Pro
100 105 110

Leu Xaa Ile Gly Ile Asn Ala Ala Tyr Met Gln Thr Tyr Ile Gly Gly
115 120 125

Val Ser Cys Pro Tyr Ile Cys Gly Arg His Leu Asp His Gly Val Leu
130 135 140

Leu Val Gly Tyr Gly Ala Ser Gly Phe Ala Pro Ser Arg Phe Lys Glu
145 150 155 160

Lys Pro Tyr Trp Ile Ile Lys Asn Ser Trp Gly Glu Asn Trp Gly Asp
165 170 175

Lys Gly Tyr Tyr Lys Ile Cys Arg Gly Ser Asn Val Arg Asn Lys Cys
180 185 190

Gly Val Asp Ser Met Val Ser Thr Val Ser Ala Thr His Ala Ser Lys
195 200 205

Asp

<210> 17
<211> 1174
<212> DNA
<213> Oryza sativa

<400> 17
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cacggcgcggg cgttagaggg agcgaactac ctggcgacgg gcaagatgg a cgtgtctcc 240
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<210> 18
<211> 286
<212> PRT
<213> Oryza sativa

<400> 18
Ala Arg Ala Ala Glu His Gly Val Thr Lys Phe Ser Asp Leu Thr Pro
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Ala Glu Phe Arg Arg Ala Tyr Leu Gly Leu Arg Thr Ser Arg Arg Ala
20 25 30

Phe Leu Arg Gly Leu Gly Ser Ala His Glu Ala Pro Val Leu Pro
35 40 45

Thr Asp Gly Leu Pro Asp Asp Phe Asp Trp Arg Asp His Gly Ala Val
50 55 60

Gly Pro Val Lys Asn Gln Gly Ser Cys Gly Ser Cys Trp Ser Phe Ser
65 70 75 80

Ala Ser Gly Ala Leu Glu Gly Ala Asn Tyr Leu Ala Thr Gly Lys Met
85 90 95

Asp Val Leu Ser Glu Gln Gln Met Val Asp Cys Asp His Glu Cys Asp
 100 105 110
 Ser Ser Glu Pro Asp Ser Cys Asp Ala Gly Cys Asn Gly Gly Leu Met
 115 120 125
 Thr Asn Ala Phe Ser Tyr Leu Leu Lys Ser Gly Gly Leu Glu Ser Glu
 130 135 140
 Lys Asp Tyr Pro Tyr Thr Gly Arg Asp Gly Thr Cys Lys Phe Asp Lys
 145 150 155 160
 Ser Lys Ile Val Thr Ser Val Gln Asn Phe Ser Val Val Ser Val Asp
 165 170 175
 Glu Asp Gln Ile Ala Ala Asn Leu Val Lys His Gly Pro Leu Ala Ile
 180 185 190
 Gly Ile Asn Ala Ala Tyr Met Gln Thr Tyr Ile Gly Gly Val Ser Cys
 195 200 205
 Pro Tyr Ile Cys Gly Arg His Leu Asp His Gly Val Leu Leu Val Gly
 210 215 220
 Tyr Gly Ala Ser Gly Phe Ala Pro Ile Arg Leu Lys Asp Lys Ala Tyr
 225 230 235 240
 Trp Ile Ile Lys Asn Ser Trp Gly Glu Asn Trp Gly Glu His Gly Tyr
 245 250 255
 Tyr Lys Ile Cys Arg Gly Ser Asn Val Arg Asn Lys Cys Gly Val Asp
 260 265 270
 Ser Met Val Ser Thr Val Ser Ala Ile His Thr Ser Lys Glu
 275 280 285
 <210> 19
 <211> 935
 <212> DNA
 <213> Triticum aestivum
 <400> 19
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 agatggaggat gcttcggag cagcagctgg tcgactgcga ccatgagtgac gacccagcag 120
 aacctgtatc atgcgtatgc ggatgcattt gtgggttgcat gacttcagcc tttagctatc 180
 tttttggaaatc tggttggccctt gagagagaaaa aggatgttttttacaccggg aaggacggta 240
 ctcgtcaattt tgagaagttc aagattgtctt ctgcgttca aacatttcacg gttgtcgctg 300
 ttgtatggaa acagattgtctt gtaaattatgg accgtgtggcc atcggttatca 360
 acggccgcata catgcagacata tacatcgccg gagtgttcatg cccatatacgt tgccggcaggc 420
 accttcgcacca cgggtgtccctt ctgcgttgcgtt acggggcgtc tggcttcgcg ctttccgc 480
 tcaaggagaaa gcccattactgg atcatcaaga acttcattgggg cgagaaactgg gggggacaaagg 540
 gtttactacaaat gatctcgagg ggctcgaacgc tgcccaacaaa ttgttggcggtc gactccatgg 600
 tctccacgggt gtccgcactt cacaatccca agggacggta ggctctgggtc tgatctgtatc 660
 tgatcgccggg cccttcctgggt gtgcgtatgg ttgttgcgtgt tgatctgcgtt agaaaagaaac 720
 ttatataatgcgtt agtgcgtgggg taggcgttcatc cgtcggttgcgtt tgatcagcag cgaagatgcg 780
 aagtcgcataat agaatgtttt ctgtataact tatgcatttg ctaaatttgc taaatgcgtt 840
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 ttgttattgtt cccatcaaaaaaaa aaaaaaaaaaaaaaa 935

<210> 20
<211> 212
<212> PRT
<213> *Triticum aestivum*

<400> 20
Thr Arg Ser Phe Ser Ala Ser Gly Ala Leu Glu Gly Ala Asn Tyr Leu
1 5 10 15

Ala Thr Gly Lys Met Glu Val Leu Ser Glu Gln Gln Leu Val Asp Cys
20 25 30

Asp His Glu Cys Asp Pro Ala Glu Pro Asp Ser Cys Asp Ala Gly Cys
35 40 45

Asn Gly Gly Leu Met Thr Ser Ala Phe Ser Tyr Leu Leu Lys Ser Gly
50 55 60

Gly Leu Glu Arg Glu Lys Asp Tyr Pro Tyr Thr Gly Lys Asp Gly Thr
65 70 75 80

Cys Lys Phe Glu Lys Ser Lys Ile Ala Ala Ser Val Gln Asn Phe Ser
85 90 95

Val Val Ala Val Asp Glu Glu Gln Ile Ala Ala Asn Leu Val Lys Tyr
100 105 110

Gly Pro Leu Ala Ile Gly Ile Asn Ala Ala Tyr Met Gln Thr Tyr Ile
115 120 125

Gly Gly Val Ser Cys Pro Tyr Ile Cys Gly Arg His Leu Asp His Gly
130 135 140

Val Leu Leu Val Gly Tyr Gly Ala Ser Gly Phe Ala Pro Ser Arg Phe
145 150 155 160

Lys Glu Lys Pro Tyr Trp Ile Ile Lys Asn Ser Trp Gly Glu Asn Trp
165 170 175

Gly Asp Lys Gly Tyr Tyr Lys Ile Cys Arg Gly Ser Asn Val Arg Asn
180 185 190

Lys Cys Gly Val Asp Ser Met Val Ser Thr Val Ser Ala Thr His Ala
195 200 205

Ser Lys Asp Glu
210

<210> 21
<211> 743
<212> DNA
<213> *Glycine max*

<220>
<221> unsure
<222> (645)

<220>
<221> unsure
<222> (680)

Ala Val Thr Gly Val Lys Asn Gln Gly Ser Cys Gly Ser Cys Trp Ser
 145 150 155 160

Phe Ser Ala Val Gly Ala Leu Glu Gly Ala His Phe Leu Ser Thr Gly
165 170 175

Gly Leu Val Ser Leu Ser Glu Gln Gln Leu Val Asp Cys Asp His Glu
 180 185 190

Cys Asp Pro Glu Glu Arg Gly Ala Cys Asp Ser Gly Cys Asn Gly Gly
195 200 205

Xaa Met Thr Thr Ala Phe Glu Tyr Thr Leu Lys Xaa Gly Gly Leu Met
 210 215 220

Lys Lys Glu Asp Tyr Pro Tyr Asn Gly Arg
225 230

<210> 23

<211> 1369

<212> DNA

<213> Glycine max

<400> 23

cgccacgagt	gcaccccttct	cttccctccga	tggtcaatact	ctcaacttgc	tttttcggtc	60
tctccatatt	ctccggcgcc	gtggccacccg	tccgaacggaa	cgacggatggaa	gaaacacccctt	120
tgtatccgttca	agtggtcgcg	ggccggggagg	accacccactt	gttcacccgg	ggacggaccactt	180
tctccgcgtt	caagacaag	ttcccaagaag	cctacccgcac	ggaggaggagg	cacgaccaccc	240
gttccgtat	cttccaaag	aaatggctcc	ggccggaaatgc	gcaccggaaat	tttggacccctt	300
ccggccgtca	cgccgttacc	agggtttccat	atctcaatcc	gttcgttggat	ttccggccgttt	360
tctccggct	gaaggccgtc	cgccgttccct	ccggacgtca	gaagggttcgg	atcccttcgaa	420
ccaggcgaccc	tccctccatgg	ttccatgggg	ggccatggatcc	atgttgcattacc	ggcgctcaaga	480
atccagggttc	ttccggatgg	ttgggttcat	ttggcccggt	ttggatgggtt	ggagggttcgg	540
attttttttc	tacccgggtgg	ctctgtggcc	tcagtggacca	gcaacttgg	gttggcgtac	600
atggatgtga	ttccggaaag	ctggggatcat	gttggatccgg	ttgttacccgg	gggtttgtatgg	660
ccactgcatt	ttggatcacaca	ttcaaggctgt	ttggactataat	ggcgagaagag	gattatccat	720
acactggaaag	agaccgtggc	ccctggcaaaat	ttgacaagag	caaatacgct	gttccctcggtt	780
ctaattttttt	ttgggtttcc	cttggatggaa	aaaaatccgt	ttggcaatctg	gtcaagaatgg	840
gtccctttgc	agtgggtatc	aaatcgattt	ttatgcacac	atataatgg	gggttctcat	900
ggccatccat	ctggggcaag	catttggatcc	atgggggttt	tttgggtggc	atggatctgg	960
gtgtttatgc	tccaaatccgt	ttttagggaaa	acgtttactgt	gtatccaaatgg	attatccatggg	1020
ggggagactg	ggggagaagaa	ggatataatcc	atgttgcac	aggttgcgtat	gtatgggggg	1080
tggatcgat	ggcttcacat	ttatgtgttt	ttatgttttc	ttacccatgg	atataaggat	1140
ggatgcctaa	atcggtttag	ggccaggatcc	ttatgtgtat	ttacatgttgc	ttatcatgtgt	1200
ataatgttat	ggggggggaa	actgttgcgg	ttatgtttat	gttttttatgc	ttatatttc	1260
tatgttgcgt	atgttgcata	ttcaatccat	ccatgtttat	cgatgttgcgt	ttgtcaagttac	1320
ctggataaaa	ttttatgtgtt	ttcccaatccat	tttttttttttt	tttttttttttt	tttttttttttt	1380

5210 34

<210> 24

2123 BRT

<213> Glycine max

<400> 24

Met Ala Asn Leu Ser Leu Leu Phe Phe Gly Leu Leu Leu Phe Ser Ala
1 5 10 15

Ala Val Ala Thr Val Glu Arg Ile Asp Asp Glu Asp Asn Leu Leu Ile
20 25 30

Arg Gln Val Val Pro Asp Ala Glu Asp His His Leu Leu Asn Ala Glu
 35 40 45
 His His Phe Ser Ala Phe Lys Thr Lys Phe Ala Lys Thr Tyr Ala Thr
 50 55 60
 Gln Glu Glu His Asp His Arg Phe Arg Ile Phe Lys Asn Asn Leu Leu
 65 70 75 80
 Arg Ala Lys Ser His Gln Lys Leu Asp Pro Ser Ala Val His Gly Val
 85 90 95
 Thr Arg Phe Ser Asp Leu Thr Pro Ser Glu Phe Arg Gly Gln Phe Leu
 100 105 110
 Gly Leu Lys Pro Leu Arg Leu Pro Ser Asp Ala Gln Lys Ala Pro Ile
 115 120 125
 Leu Pro Thr Ser Asp Ile Pro Thr Asp Phe Asp Trp Arg Asp His Gly
 130 135 140
 Ala Val Thr Gly Val Lys Asn Gln Gly Ser Cys Gly Trp Cys Trp Ser
 145 150 155 160
 Phe Ser Ala Val Gly Ala Leu Glu Gly Ala His Phe Leu Ser Thr Gly
 165 170 175
 Gly Leu Val Ser Leu Ser Glu Gln Gln Leu Val Asp Cys Asp His Glu
 180 185 190
 Cys Asp Pro Glu Glu Arg Gly Ala Cys Asp Ser Gly Cys Asn Gly Gly
 195 200 205
 Leu Met Thr Thr Ala Phe Glu Tyr Thr Leu Lys Ala Gly Gly Leu Met
 210 215 220
 Arg Glu Glu Asp Tyr Pro Tyr Thr Gly Arg Asp Arg Gly Pro Cys Lys
 225 230 235 240
 Phe Asp Lys Ser Lys Ile Ala Ala Ser Val Ala Asn Phe Ser Val Val
 245 250 255
 Ser Leu Asp Glu Glu Gln Ile Ala Ala Asn Leu Val Lys Asn Gly Pro
 260 265 270
 Leu Ala Val Gly Ile Asn Ala Val Phe Met Gln Thr Tyr Ile Gly Gly
 275 280 285
 Val Ser Cys Pro Tyr Ile Cys Gly Lys His Leu Asp His Gly Val Leu
 290 295 300
 Leu Val Gly Tyr Gly Ser Gly Ala Tyr Ala Pro Ile Arg Phe Lys Glu
 305 310 315 320
 Lys Pro Tyr Trp Ile Ile Lys Asn Ser Trp Gly Glu Ser Trp Gly Glu
 325 330 335
 Glu Gly Tyr Tyr Lys Ile Cys Arg Gly Arg Asn Val Cys Gly Val Asp
 340 345 350

Ser Met Val Ser Thr Val Ala Ala Ile His Val Ser Asn His
355 360 365

<210> 25
<211> 441
<212> DNA
<213> Zea mays

<220>
<221> unsure
<222> (362)

<220>
<221> unsure
<222> (375)

<220>
<221> unsure
<222> (398)

<400> 25
gccagaaca atttctgctt gattggagag cctgggttgg gaaaaactgc aattgctgaa 60
ggacttgc tc agcgccatc tacaggcgat gtacccgtaa caatagaagg gaaaaaggc 120
ataacccttg acatgggact tcttgggtgtt ggcacaaaatg accgtggaga attcgaagaa 180
agatataaag agctgtggaa ggaataaaag caaagtgtatg agatataact otttattgtat 240
gaagttcaca ctctgtatagg agcaggagca gcgagggtgc tatagatgtt gctaataatcc 300
tgaaggctcc gttggccatgg agtgaattaca gtgcattggaa gccactacac tagatgaata 360
tnggaagccc attngaaag acccgccctt acggaggntt caacctgtga aagtggccaga 420
ccaaacatg atgaaaccat t 441

<210> 26
<211> 128
<212> PRT
<213> Zea mays

<220>
<221> UNSURE
<222> (121)

<220>
<221> UNSURE
<222> (125)

<400> 26
Lys Asn Asn Phe Cys Leu Ile Gly Glu Pro Gly Val Gly Lys Thr Ala
1 5 10 15

Ile Ala Glu Gly Leu Ala Gln Arg Ile Ser Thr Gly Asp Val Pro Glu
20 25 30

Thr Ile Glu Gly Lys Lys Val Ile Thr Leu Asp Met Gly Leu Leu Val
35 40 45

Ala Gly Thr Lys Tyr Arg Gly Glu Glu Arg Leu Lys Lys Leu
50 55 60

Met Glu Glu Ile Lys Gln Ser Asp Glu Ile Ile Leu Phe Ile Asp Glu
65 70 75 80

Val His Thr Leu Ile Gly Ala Gly Ala Ala Glu Gly Ala Ile Asp Ala
85 90 95

Ala Asn Ile Leu Glu Ala Cys Val Ala Arg Gly Glu Leu Gln Cys Ile
100 105 110

Gly Ala Thr Thr Leu Asp Glu Tyr Xaa Lys Pro Ile Xaa Lys Asp Pro
 115 120 125

<210> 27

<211> 2471

<212> DNA

<213> Oryza sativa

<400> 27

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gttcgtcgag	ggtaaagggt	tagoaggccc	tgtgtcgaa	agccgttgggg	ccgatcttag	180
caatattcgc	acgcagggtt	tccgaatgt	tgccggagact	acaaggatgt	ttgtgtcagg	240
atgtggaggaa	ggggatgttt	gaaataaaaat	gccaacactt	gaggaggatc	gaacttaat	300
aacaaaattt	gecaggagg	gaaagctaga	tcttgttgtt	gaaaggccac	cccgatgtta	360
gcgtgtcgta	caatattctgg	gcacggacaa	aaaggacacac	ccatgttttt	ttggagaccc	420
tgtgtgttgg	aaagacgacaa	tgtcagaagg	cttgcgttca	ccgcattttt	ctgtgtgttt	480
gcccgttacaa	atttgaaggaa	agaaggctat	taccctgtat	atggggacttc	ttgtgtctgg	540
tacaaaataac	cgtggagaat	tttgaaggaa	atttttttttt	ctgtggaaag	aaatcaagca	600
gagtgtatgg	ataatactat	ttttatgt	atgttttttt	cttccatggag	caggacgac	660
tgagggtgtt	atttgcgtgt	cttcaatctt	aaaggccacaa	ttttagaaag	gaaactacaa	720
tgttgtatgg	gcacccacac	ttttatgttt	caggaaatgtt	attttttttt	atggggatgg	780
agaaaagacgt	ttcccgatctt	taaagatgtcc	agagccaaaca	gttggataaa	ccatagaat	840
tctcgagggg	cttcggggac	gatataatgt	ccatccatata	cttcgttacc	ctgtatgtc	900
tgttgttcca	gtgtccaaac	tatctttatca	atatcatgtt	gtatgtttcc	ttcccgatata	960
agcaattatgt	ttgtttgtat	aaggccgttc	actgttttttt	cttcggatct	cccgatgttcc	1020
tgaagaagct	agagatgtt	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1080
tgtccgttgc	caggacttcg	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1140
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ggggggagaca	ggggccatgg	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1260
tggttattcca	gttagagaagg	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1320
gacttttgcgt	caggcggtca	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1380
ccggccgtgt	ctgtgtggcc	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1440
agggttccaaat	gggtttgtttt	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1500
atctgggggg	ggccatgtca	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1560
caatgttttt	ggtttccacccc	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1620
gttcgttgcgt	cgccggccat	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1680
agatgttattc	aaatcatgtt	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1740
aagaacacgt	gactttcaaga	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1800
catcgagaaat	gggttgcgtca	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1860
cttacaggcgg	atcaagggcc	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1920
cctcaacccgt	cttcggacaga	tttttttttt	tttttttttt	tttttttttt	tttttttttt	1980
gatcgcccgat	atcatgtca	tttttttttt	tttttttttt	tttttttttt	tttttttttt	2040
ccagggttccac	gagaaggatca	tttttttttt	tttttttttt	tttttttttt	tttttttttt	2100
tgccggccgg	ctttaggggg	tttttttttt	tttttttttt	tttttttttt	tttttttttt	2160
gtgtatgtgg	gggttgggg	tttttttttt	tttttttttt	tttttttttt	tttttttttt	2220
gggtatgtttt	ctgtatggcc	tttttttttt	tttttttttt	tttttttttt	tttttttttt	2280
gtgtatgttc	atataatctg	tttttttttt	tttttttttt	tttttttttt	tttttttttt	2340
tttctcgatag	ttttagcaactt	tttttttttt	tttttttttt	tttttttttt	tttttttttt	2400
ggaaacacacca	gtgtatctt	tttttttttt	tttttttttt	tttttttttt	tttttttttt	2460
aaaaaaaaaaa	a	tttttttttt	tttttttttt	tttttttttt	tttttttttt	2520

<210> 28
<211> 760

<212> PRT

<213> Oryza sativa

<400> 28

Phe Val Ala Val Glu Ile Pro Phe Thr Pro Arg Ala Lys Arg Val Leu
1 5 10 15

Glu Leu Ser Leu Glu Glu Ala Arg Gln Leu Gly His Asn Tyr Ile Gly
20 25 30

Ser Glu His Leu Leu Leu Gly Leu Leu Arg Glu Gly Glu Gly Val Ala
35 40 45

Ala Arg Val Leu Glu Ser Leu Gly Ala Asp Pro Ser Asn Ile Arg Thr
50 55 60

Gln Val Ile Arg Met Ile Gly Glu Thr Thr Glu Ala Val Gly Ala Gly
65 70 75 80

Val Gly Gly Ser Ser Gly Asn Lys Met Pro Thr Leu Glu Glu Tyr
85 90 95

Gly Thr Asn Leu Thr Lys Leu Ala Glu Glu Gly Lys Leu Asp Pro Val
100 105 110

Val Gly Arg Gln Pro Gln Ile Glu Arg Val Val Gln Ile Leu Gly Arg
115 120 125

Arg Thr Lys Asn Asn Pro Cys Leu Ile Gly Glu Pro Gly Val Gly Lys
130 135 140

Thr Ala Ile Ala Glu Gly Leu Ala Gln Arg Ile Ser Thr Gly Asp Val
145 150 155 160

Pro Glu Thr Ile Glu Gly Lys Val Ile Thr Leu Asp Met Gly Leu
165 170 175

Leu Val Ala Gly Thr Lys Tyr Arg Gly Glu Phe Glu Arg Leu Lys
180 185 190

Lys Leu Met Glu Glu Ile Lys Gln Ser Asp Glu Ile Ile Leu Phe Ile
195 200 205

Asp Glu Val His Thr Leu Ile Gly Ala Ala Glu Gly Ala Ile
210 215 220

Asp Ala Ala Asn Ile Leu Lys Pro Ala Leu Ala Arg Gly Glu Leu Gln
225 230 235 240

Cys Ile Gly Ala Thr Thr Leu Asp Glu Tyr Arg Lys His Ile Glu Lys
245 250 255

Asp Pro Ala Leu Glu Arg Arg Phe Gln Pro Val Arg Val Pro Glu Pro
260 265 270

Thr Val Asp Glu Thr Ile Glu Ile Leu Arg Gly Leu Arg Glu Arg Tyr
275 280 285

Glu Ile His His Lys Leu Arg Tyr Thr Asp Asp Ala Leu Ile Ser Ala
290 295 300

Ala Lys Leu Ser Tyr Gln Tyr Ile Ser Asp Arg Phe Leu Pro Asp Lys
 305 310 315 320
 Ala Ile Asp Leu Ile Asp Glu Ala Gly Ser Arg Val Arg Leu Arg His
 325 330 335
 Ala Gln Val Pro Glu Glu Ala Arg Glu Leu Asp Lys Glu Leu Lys Gln
 340 345 350
 Ile Thr Lys Asp Lys Asn Glu Ala Val Arg Ser Gln Asp Phe Glu Lys
 355 360 365
 Ala Gly Glu Leu Arg Asp Arg Glu Met Glu Leu Lys Ala Gln Ile Thr
 370 375 380
 Ala Leu Ile Asp Lys Ser Lys Glu Met Ser Lys Ala Glu Thr Glu Ser
 385 390 395 400
 Gly Glu Thr Gly Pro Leu Val Asn Glu Ala Asp Ile Gln His Ile Val
 405 410 415
 Ser Ser Trp Thr Gly Ile Pro Val Glu Lys Val Ser Ser Asp Glu Ser
 420 425 430
 Asp Lys Leu Leu Lys Met Glu Glu Thr Leu His Gln Arg Val Ile Gly
 435 440 445
 Gln Asp Glu Ala Val Lys Ala Ile Ser Arg Ser Ile Arg Arg Ala Arg
 450 455 460
 Val Gly Leu Lys Asn Pro Asn Arg Pro Ile Ala Ser Phe Ile Phe Ala
 465 470 475 480
 Gly Pro Thr Gly Val Gly Lys Ser Glu Leu Ala Lys Ala Leu Ala Ala
 485 490 495
 Tyr Tyr Phe Gly Ser Glu Glu Ala Met Ile Arg Leu Asp Met Ser Glu
 500 505 510
 Phe Met Glu Arg His Thr Val Ser Lys Leu Ile Gly Ser Pro Pro Gly
 515 520 525
 Tyr Val Gly Tyr Thr Glu Gly Gly Gln Leu Thr Glu Ala Val Arg Arg
 530 535 540
 Arg Pro Tyr Thr Val Val Leu Phe Asp Glu Ile Glu Lys Ala His Pro
 545 550 555 560
 Asp Val Phe Asn Met Met Leu Gln Ile Leu Glu Asp Gly Arg Leu Thr
 565 570 575
 Asp Ser Lys Gly Arg Thr Val Asp Phe Lys Asn Thr Leu Leu Ile Met
 580 585 590
 Thr Ser Asn Val Gly Ser Ser Val Ile Glu Lys Gly Arg Lys Ile
 595 600 605
 Gly Phe Asp Leu Asp Tyr Asp Glu Lys Asp Ser Ser Tyr Ser Arg Ile
 610 615 620

Lys Ser Leu Val Val Glu Glu Met Lys Gln Tyr Phe Arg Pro Glu Phe
 625 630 635 640
 Leu Asn Arg Leu Asp Glu Met Ile Val Phe Arg Gln Leu Thr Lys Leu
 645 650 655
 Glu Val Lys Glu Ile Ala Glu Ile Met Leu Lys Glu Val Phe Asp Arg
 660 665 670
 Leu Lys Ala Lys Asp Ile Asp Leu Gln Val Thr Glu Lys Phe Lys Glu
 675 680 685
 Arg Ile Val Asp Glu Gly Phe Asn Pro Ser Tyr Gly Ala Arg Pro Leu
 690 695 700
 Arg Arg Ala Ile Met Arg Leu Leu Glu Asp Ser Leu Ala Glu Lys Met
 705 710 715 720
 Leu Ala Gly Glu Val Lys Glu Gly Asp Ser Ala Ile Val Asp Val Asp
 725 730 735
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 740 745 750
 Leu Ser Thr Pro Ala Val Thr Val
 755 760
 <210> 29
 <211> 540
 <212> DNA
 <213> *Triticum aestivum*
 <220>
 <221> unsure
 <222> (434)
 <220>
 <221> unsure
 <222> (462)
 <220>
 <221> unsure
 <222> (495)
 <220>
 <221> unsure
 <222> (515)
 <400> 29
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 gaagtccact gtttccctt tgcgttcggg taaaccttcgg tttccagga tctggagcat 120
 catgttgaac acatccggat gtgccttctc aatctcatca aaaagcacaa cgctgtatgg 180
 ccgcgcgtca accgcctccg tcaagtcggcc accttcgtgt tatccccc acgcctgtgg 240
 tgaacctgatc aacttggaca cagtgtggct tcctcatggat tcactccat ccagccggat 300
 catggcttct tcagagccga agtaatgtg tgccagatgc tttgcaagct ctgatttccc 360
 aacacccatgtt ggacccgttcaaa aaatggatgtt cgcaattggt ctgttggggc tcttgaggc 420
 cacacccatgtt ggacccgttcaaa aaatggatgtt cgcaattggt ctgttggggc tcttgaggc 480
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<210> 30
<211> 178
<212> PRT
<213> *Triticum aestivum*

<220>
<221> UNSURE
<222> (9)

<220>
<221> UNSURE
<222> (16)

<220>
<221> UNSURE
<222> (27)

<220>
<221> UNSURE
<222> (36)

<400> 30
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Leu His Lys Arg Val Ile Ala Gln Asp Glu Xaa Val Lys Ala Ile Ser
20 25 30

Arg Ser Val Xaa Arg Ala Arg Val Ala Leu Lys Ser Pro Asn Arg Pro
35 40 45

Ile Ala Ser Phe Ile Phe Ala Gly Pro Thr Gly Val Gly Lys Ser Glu
50 55 60

Leu Ala Lys Thr Leu Ala Ser Tyr Tyr Phe Gly Ser Glu Glu Ala Met
65 70 75 80

Ile Arg Leu Asp Met Ser Glu Phe Met Glu Arg His Thr Val Ser Lys
85 90 95

Leu Ile Gly Ser Pro Pro Gly Tyr Val Gly Tyr Thr Glu Gly Gly Gln
100 105 110

Leu Thr Glu Ala Val Arg Arg Arg Pro Tyr Ser Val Val Leu Phe Asp
115 120 125

Glu Ile Glu Lys Ala His Pro Asp Val Phe Asn Met Met Leu Gln Ile
130 135 140

Leu Glu Asp Gly Arg Leu Thr Asp Ser Lys Gly Arg Thr Val Asp Phe
145 150 155 160

Lys Asn Thr Leu Leu Ile Met Thr Ser Asn Val Gly Ser Ser Val Ile
165 170 175

Glu Lys

<210> 31
<211> 2050

<212> DNA
<213> Zea mays

<400> 31
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gaaaaagggtc ataacccttg acatggact tcttgggtctt ggcacaaaatg accgtggaga 180
attcgaagaa agatataaga agtctatggaa gggaaataaaag caaagtatgt agataataact 240
ctttatgtat gaagttcaca cttctatgggg agcaggagca ggggggtgtc tatagatgtc 300
gtaataatct tgaaggcttc tggtggcaga ggtgttattt acgtctatgg agccactaca 360
ctagatgaat ataggaagca cattggagaaa gacccagc ttgaacggag gtttcaaccc 420
gtgaaatgtc cagaaccaaaatc agtagatggaa accattttt acgtctatgg actggggaa 480
cgatatgaga tccacccataa atctcgatc acgtatggaa ctctgttgc agctgcaaaag 540
ctgtcatatc aatataatc tgatcggtt ctcccgatgg agggcaatttga ctttgcattgt 600
gaaggcgtt cccgtgttgc gtcacatggat gacagggttc cggaggaaag aagagagctt 660
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<210> 32
<211> 550
<212> PRT
<213> Zea mays

<400> 32
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1 5 10 15

Ala Asn Ile Leu Lys Pro Ala Leu Ala Arg Gly Glu Leu Gln Cys Ile
20 25 30

Gly Ala Thr Thr Leu Asp Glu Tyr Arg Lys His Ile Glu Lys Asp Pro
35 40 45

Ala Leu Glu Arg Arg Phe Gln Pro Val Lys Val Pro Glu Pro Thr Val
50 55 60

Asp Glu Thr Ile Glu Ile Leu Arg Gly Leu Arg Glu Arg Tyr Glu Ile
65 70 75 80

His His Lys Leu Arg Tyr Thr Asp Glu Ala Leu Ile Ala Ala Ala Lys
 85 90 95
 Leu Ser Tyr Gln Tyr Ile Ser Asp Arg Phe Leu Pro Asp Lys Ala Ile
 100 105 110
 Asp Leu Ile Asp Glu Ala Gly Ser Arg Val Arg Leu Gln His Ala Gln
 115 120 125
 Val Pro Glu Glu Ala Arg Glu Leu Asp Lys Glu Leu Lys Gln Val Thr
 130 135 140
 Lys Gln Lys Asn Glu Ala Val Arg Ser Gln Asp Phe Glu Lys Ala Gly
 145 150 155 160
 Glu Leu Arg Asp Arg Glu Met Glu Leu Lys Ala Gln Ile Thr Ala Leu
 165 170 175
 Ile Asp Lys Ser Lys Glu Leu Ser Lys Ala Glu Glu Glu Ser Gly Glu
 180 185 190
 Thr Gly Pro Met Val Asn Glu Glu Asp Ile Gln His Ile Val Ser Ser
 195 200 205
 Trp Thr Gly Ile Pro Val Glu Lys Val Ser Ser Asp Glu Ser Asp Lys
 210 215 220
 Leu Leu Lys Met Glu Glu Thr Leu His Lys Arg Val Ile Gly Gln Asp
 225 230 235 240
 Glu Ala Val Val Ala Ile Ser Arg Ser Ile Arg Arg Ala Arg Val Gly
 245 250 255
 Leu Lys Asn Pro Asn Arg Pro Ile Ala Ser Phe Ile Phe Ala Gly Pro
 260 265 270
 Thr Gly Val Gly Lys Ser Glu Leu Ala Lys Ala Leu Ala Ala Tyr Tyr
 275 280 285
 Phe Gly Ser Glu Glu Ala Met Ile Arg Leu Asp Met Ser Glu Phe Met
 290 295 300
 Glu Arg His Thr Val Ser Lys Leu Ile Gly Ser Pro Pro Gly Tyr Val
 305 310 315 320
 Gly Tyr Thr Glu Gly Gly Gln Leu Thr Glu Ala Val Arg Arg Arg Pro
 325 330 335
 Tyr Thr Val Val Leu Phe Asp Glu Ile Glu Lys Ala His Pro Asp Val
 340 345 350
 Phe Asn Met Met Leu Gln Ile Leu Glu Asp Gly Arg Leu Thr Asp Ser
 355 360 365
 Lys Gly Arg Thr Val Asp Phe Lys Asn Thr Leu Leu Ile Met Thr Ser
 370 375 380
 Asn Val Gly Ser Ser Val Ile Glu Lys Gly Gly Arg Lys Ile Gly Phe
 385 390 395 400

Asp Leu Asp Ser Asp Glu Lys Asp Ser Ser Tyr Ser Arg Ile Lys Ser
405 410 415

Leu Val Ile Glu Glu Met Lys Gln Tyr Phe Arg Pro Glu Phe Leu Asn
420 425 430

Arg Leu Asp Glu Met Ile Val Phe Arg Gln Leu Thr Lys Leu Glu Val
435 440 445

Lys Glu Ile Ala Asp Ile Met Leu Gln Glu Val Phe Asp Arg Leu Lys
450 455 460

Ala Lys Asp Ile Asn Leu Gln Val Thr Glu Lys Phe Lys Glu Arg Val
465 470 475 480

Val Asp Glu Gly Tyr Asn Pro Ser Tyr Gly Ala Arg Pro Leu Arg Arg
485 490 495

Ala Ile Met Arg Leu Leu Glu Asp Ser Leu Ala Glu Lys Met Leu Ala
500 505 510

Gly Glu Val Lys Glu Gly Asp Ser Ala Ile Val Asp Val Asp Ser Glu
515 520 525

Gly Lys Val Val Val Leu Asn Gly Gln Gly Gly Ile Pro Glu Leu Ser
530 535 540

Thr Pro Ala Ile Thr Val
545 550

<210> 33
<211> 740
<212> DNA
<213> Oryza sativa

<220>
<221> unsure
<222> (628)

<220>
<221> unsure
<222> (674)

<220>
<221> unsure
<222> (740)

<400> 33
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gctccgtgag ggtgaagggtg tagcagcccg tgcgtcgaa agccttggag ccgatccctag 180
caatattcgc acgcaggatc tccgaatgtat tgccgagact acagaagctg ttggtgccgg 240
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gcgtgtcgta caaatttcg ggcagacgaa caaagaacaa cccatgcattt aattggagaa 420
cctggtgatgg tggaaaagaca gcaattgcg aaggccttgc tcaacgcatt tctactgggt 480
atgtgcgttca aacaattgtt gggaaagaagg tcattttttt tgatatggaa cttcttggtt 540
ctgttacaaa ataccgttggaa gaaatggaa aagatctttt gaaatgtatggaaatca 600
agcagactgttca tgagataata ctatattttttt atgaaatgttca cacttcataa ggagcaggag 660

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atgtttgga gccacacacn 740

<210> 34
<211> 298
<212> PRT
<213> Oryza sativa

<220>
<221> UNSURE
<222> (65)...(66)...(67)...(68)

<220>
<221> UNSURE
<222> (276)

<400> 34
Phe Thr Pro Arg Ala Lys Arg Val Leu Glu Leu Ser Leu Glu Glu Ala
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Arg Gln Leu Gly His Asn Tyr Ile Gly Ser Glu His Leu Leu Gly
20 25 30
Leu Leu Arg Glu Gly Glu Gly Val Ala Ala Arg Val Leu Glu Ser Leu
35 40 45
Gly Ala Asp Pro Ser Asn Ile Arg Thr Gln Val Ile Arg Met Ile Gly
50 55 60
Xaa Xaa Xaa Xaa Phe Val Ala Val Glu Ile Pro Phe Thr Pro Arg Ala
65 70 75 80
Lys Arg Val Leu Glu Leu Ser Leu Glu Ala Arg Gln Leu Gly His
85 90 95
Asn Tyr Ile Gly Ser Glu His Leu Leu Gly Leu Leu Arg Glu Gly
100 105 110
Glu Gly Val Ala Ala Arg Val Leu Glu Ser Leu Gly Ala Asp Pro Ser
115 120 125
Asn Ile Arg Thr Gln Val Ile Arg Met Ile Gly Glu Thr Thr Glu Ala
130 135 140
Val Gly Ala Gly Val Gly Gly Ser Ser Gly Asn Lys Met Pro Thr
145 150 155 160
Leu Glu Glu Tyr Gly Thr Asn Leu Thr Lys Leu Ala Glu Glu Gly Lys
165 170 175
Leu Asp Pro Val Val Gly Arg Gln Pro Arg Leu Ser Val Ser Tyr Lys
180 185 190
Phe Trp Gly Arg Arg Thr Lys Asn Asn Pro Cys Leu Ile Gly Glu Pro
195 200 205
Gly Val Trp Lys Thr Ala Ile Ala Glu Gly Leu Ala Gln Arg Ile Ser
210 215 220

Thr Gly Asp Val Pro Glu Thr Ile Glu Gly Lys Lys Val Ile Thr Leu
225 230 235 240

Asp Met Gly Leu Leu Val Ala Gly Thr Lys Tyr Arg Gly Glu Phe Glu
245 250 255

Glu Arg Leu Lys Lys Leu Met Glu Glu Ile Lys Gln Ser Asp Glu Ile
260 265 270

Ile Leu Phe Xaa Asp Glu Val His Thr Leu Ile Gly Ala Gly Ala Thr
275 280 285

Glu Gly Ala Ile Asp Ala Ala Asn Ile Leu
290 295

<210> 35

<211> 1205

<212> DNA

<213> Triticum aestivum

<400> 35

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agagtgttca ttgtatataat tggaaatgtg catgttaatt catatgtg tcttagcggt 180
cttgcgttgc cggtcggtct cagggtatgaa taaaatgtg ttgtcatact tctgacatgg 240
aatatgttac atcgtcaatgt aatttattact atgtgtcttg aacctgcgtt ttctttagca 300
taaaaaacccg actatgtgtat gtttattcta ttcatgtggg ttgtatgttca caactttctg 360
gatgccaaccc accatataatc tgactttctt tgatgtataga tgcttaactaa tagttgttat 420
taataatattc cttttatcgaa aaaaaacta atgttgcgtg tgccgtttgc aatgtttatgc 480
cattaggctg gagagttgcg agatcgtgaa atggaattga aggcgcggaa taacagccctt 540
gattgacaagc agcaaaaggaa tggaaacaaaggc agagactgaa tggggagaga cggggccggat 600
ggtgcatgaa tcagatatacc agcacatgtgt gtcatacatgg actgttatttc cagttggagaa 660
agtctcactg gacgaatctg ataaatctt taagatggaa gagacattgc ataagcgtgt 720
catcgcccaa gacggggctg tggaaagcaat aagtcgggtct gttegggtcg ctctgtgtggg 780
cctcaagagc cccaaagacat caatttgcggat cttcatattttt gcagggtcccc caatgtttttgg 840
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ctgtgc 1205

<210> 36

<211> 239

<212> PRT

<213> Triticum aestivum

<400> 36

Ala Gly Glu Leu Arg Asp Arg Glu Met Glu Leu Arg Arg Gln Ile Thr
1 5 10 15

Ala Leu Ile Asp Lys Ser Lys Glu Met Asn Lys Ala Glu Thr Glu Ser
20 25 30

Gly Glu Thr Gly Pro Met Val His Glu Ser Asp Ile Gln His Ile Val
35 40 45

Ser Ser Trp Thr Gly Ile Pro Val Glu Lys Val Ser Thr Asp Glu Ser
50 55 60

Asp Lys Leu Leu Lys Met Glu Glu Thr Leu His Lys Arg Val Ile Gly
 65 70 75 80
 Gln Asp Glu Ala Val Lys Ala Ile Ser Arg Ser Val Arg Arg Ala Arg
 85 90 95
 Val Gly Leu Lys Ser Pro Asn Arg Pro Ile Ala Ser Phe Ile Phe Ala
 100 105 110
 Gly Pro Thr Gly Val Gly Lys Ser Glu Leu Ala Lys Thr Leu Ala Ser
 115 120 125
 Tyr Tyr Phe Gly Ser Glu Glu Ala Met Ile Arg Leu Asp Met Ser Glu
 130 135 140
 Phe Met Glu Arg His Thr Val Ser Lys Leu Ile Gly Ser Pro Pro Gly
 145 150 155 160
 Tyr Val Gly Tyr Thr Glu Gly Gly Gln Leu Thr Glu Ala Val Arg Arg
 165 170 175
 Arg Pro Tyr Ser Val Val Leu Phe Asp Glu Ile Glu Lys Ala His Pro
 180 185 190
 Asp Val Phe Asn Met Met Leu Gln Ile Leu Glu Asp Gly Arg Leu Thr
 195 200 205
 Asp Ser Lys Gly Arg Thr Val Asp Phe Lys Asn Thr Leu Leu Ile Met
 210 215 220
 Thr Ser Asn Val Gly Ser Ser Val Ile Glu Lys Lys Lys Leu Val
 225 230 235
 <210> 37
 <211> 498
 <212> DNA
 <213> Zea mays
 <220>
 <221> unsure
 <222> (327)
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 <221> unsure
 <222> (350)
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<220>
<221> unsure
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<221> unsure
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<221> unsure
<222> (486)

<220>
<221> unsure
<222> (492)

<400> 37

<210> 38

<211> 113

<212> PBT

<213> Zea mays

<220>
<221> UNSURE
<222> (109)

<400> 38

Leu Leu Leu Leu Asp Ala Ile Asp Pro Asp Ser Asp Ile Arg Leu Phe
1 5 10 15

Val Asn Ser Pro Gly Gly Ser Leu Ser Ala Thr Met Ala Ile Tyr Asp
20 25 30

Val Met Gln Leu Val Arg Ala Asp Val Ser Thr Ile Gly Met Gly Ile
35 40 45

Ala Gly Ser Thr Ala Ser Ile Ile Leu Gly Gly Gly Thr Lys Gly Lys
 50 55 60

Arg Phe Ala Met Pro Asn Thr Arg Ile Met Ile His Gln Pro Val Gly
65 70 75 80

Gly Ala Ser Gly Gln Ala Leu Asp Val Glu Val Gln Ala Lys Glu Ile
 85 90 95

Leu Thr Asn Lys Arg Asn Val His Arg Ile Val Ser Xaa Phe Thr Gly
100 105 110

Arg

<210> 39
<211> 459
<212> DNA
<213> Oryza sativa

<400> 39
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ccatcgccgg cgccggcggg ccaggccacc gacatcgcca tccaggccaa ggagattctc 180
aaactgcgcg accgcctcaaa caagatctac cagaagcaca cccggccggaa gatcgacaag 240
atcgagcgt gcatggagcg cgaccccttc atggaccccg aggaggccgg cgatggggg 300
ctcatcgccg aggttaatggaa gaaaccggccc ggcgtccctga taccggaggg cgcactggc 360
gttgacccgtc cgaccacag cggccgtggc gtcggccgaa gggccagaga tgtcgaggag 420
ccctccggcg tggactgtt ggccgcaaaat gtgaaacct 459

<210> 40
<211> 109
<212> PRT
<213> Oryza sativa

<400> 40
Arg Cys Pro Val Thr Thr Leu Cys Ile Gly Gln Ala Ala Ser Met Gly
1 5 10 15

Ser Leu Leu Leu Ala Ala Gly Ala Arg Gly Glu Arg Arg Ala Leu Pro
20 25 30

Asn Ala Arg Val Met Ile His Gln Pro Ser Gly Gly Ala Gln Gly Gln
35 40 45

Ala Thr Asp Ile Ala Ile Gln Ala Lys Glu Ile Leu Lys Leu Arg Asp
50 55 60

Arg Leu Asn Lys Ile Tyr Gln Lys His Thr Gly Gln Glu Ile Asp Lys
65 70 75 80

Ile Glu Gln Cys Met Glu Arg Asp Leu Phe Met Asp Pro Glu Glu Ala
85 90 95

Arg Asp Trp Gly Leu Ile Asp Glu Val Ile Glu Asn Arg
100 105

<210> 141
<211> 466
<212> DNA
<213> Glycine max

<400> 41
ggagcgttcc cagagtgtta taagtcaact tttccaatac aggataaatcc gttgtgggtgg 60
agcagcttgc gacgatattgg caaacatcat agttgtctag ctcctgttacc tcgacgctgt 120
tgatcctaact aaggatatttg tcatgtatgt aaattctcca ggagggtcggttacagctgg 180
aatggctata ttgtatcacaa tgaggcatat ccgacctgtatgttgcgtactg ttgtgttgg 240
attaggcgttgc agtattggag cttttctgttgc gacgcaggaa acaaaaggaa agatatacag 300
cttgccaaat tcaaggataa tgattcatca accgcgttggt ggtgtcaag gaggccaaac 360

tgacatagat attcaggcta atgaaatgtc gcatcaaaag gcaaatctga atggatatct 420
cgccatcac actggccaaa gtttagacaa agatcaacca agatac 466

<210> 42
<211> 150
<212> PRT
<213> Glycine max

<400> 42
Glu Arg Phe Gln Ser Val Ile Ser Gln Leu Phe Gln Tyr Arg Ile Ile
1 5 10 15

Arg Cys Gly Gly Ala Val Asp Asp Asp Met Ala Asn Ile Ile Val Ala
20 25 30

Gln Leu Leu Tyr Leu Asp Ala Val Asp Pro Asn Lys Asp Ile Val Met
35 40 45

Tyr Val Asn Ser Pro Gly Gly Ser Val Thr Ala Gly Met Ala Ile Phe
50 55 60

Asp Thr Met Arg His Ile Arg Pro Asp Val Ser Thr Val Cys Val Gly
65 70 75 80

Leu Ala Ala Ser Met Gly Ala Phe Leu Leu Ser Ala Gly Thr Lys Gly
85 90 95

Lys Arg Tyr Ser Leu Pro Asn Ser Arg Ile Met Ile His Gln Pro Leu
100 105 110

Gly Gly Ala Gln Gly Gly Gln Thr Asp Ile Asp Ile Gln Ala Asn Glu
115 120 125

Met Leu His Gln Lys Ala Asn Leu Asn Gly Tyr Leu Ala Tyr His Thr
130 135 140

Gly Gln Ser Leu Asp Lys
145 150

<210> 43
<211> 617
<212> DNA
<213> Triticum aestivum

<220>
<221> unsure
<222> (358)

<220>
<221> unsure
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<220>
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<220>
<221> unsure
<222> (600)

<220>
<221> unsure
<222> (602)

<400> 43
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gctggatgg ccataatttga tacaatgaag catatcaggc ctgtatgttc gacagttgt 180
atccgacttg ctgcaatgtatggatctttt ctacttttagcg gtgggacgaa agggaaaggagg 240
tacagtttac ttaactcaag aataatgtc catcaggcctc ttggggaggg cccaaaggaca 300
agagaccgac ctggatgttcc caaggccaaa tgagatgtc caccacaagg ccaacttnta 360
acggatcaccc agatcaccc actggggcagg cccgttggataa gcaatgtat atactggacc 420
tgacttccctc aagagcgcna aaggagaaaaa ggatgtatggg cttttatgtat ggataatcc 480
tgaaccctt taaancgtt caaccactcc agtcttccgtt agccatccgtt gacaaaaatc 540
tataccgttca aagcaatgtt ttgtgtatctc ngantttgtt tgacacccgtt ttttctgttagn 600
cngctaaatgttctt 617

<210> 44
<211> 95
<212> PRT
<213> Triticum aestivum

<400> 44
Gly Gly Pro Val Glu Asp Asp Met Ala Asn Val Ile Val Ala Gln Leu
1 5 10 15

Leu Tyr Leu Asp Ala Val Asp Pro Asn Lys Asp Ile Ile Met Tyr Val
20 25 30

Asn Ser Pro Gly Gly Ser Val Thr Ala Gly Met Ala Ile Phe Asp Thr
35 40 45

Met Lys His Ile Arg Pro Asp Val Ser Thr Val Cys Ile Gly Leu Ala
50 55 60

Ala Ser Met Gly Ala Phe Leu Leu Ser Gly Gly Thr Lys Gly Lys Arg
65 70 75 80

Tyr Ser Leu Pro Asn Ser Arg Ile Met Ile His Gln Pro Leu Gly
85 90 95

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<210> 45
<211> 521
<212> DNA
<213> Triticum aestivum

<220>
<221> unsure
<222> (384)

<220>
<221> unsure
<222> (469)

<400> 45
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ctcttcctcg ccggccggcgc ggcggggag aggccggcgc tgcccaacgc cagggtcatg 180
atccccacgc cctccggcgg ggcggggcgc caggccacgc acatccatcg ccaggccaaag 240
gagataccatca aagtcgtcgcg accggccctca caagatctac gccaagcaca cggggccaaaga 300
acatcgacaa gatcgagcag tgcgtggcgt gtgacccctt catggacccc cgaggaggccc 360
gcgaatgggg gggtttataga cggatctac gagaacgcggc ggctccctca tcctgtatggc 420
ctatggcggtt gaccgcctca cacgggtgggg gcccggcgc aacggcgtna caaggaaagg 480
atatggggatcccgctgtta taagggtggc aagcacaaag g 521

<210> 46
<211> 84
<212> PRT
<213> Triticum aestivum

<400> 46
Leu Tyr Ile Asn Ser Pro Gly Gly Val Val Thr Ala Gly Leu Ala Ile
1 5 10 15
Tyr Asp Thr Met Gln Tyr Ile Arg Cys Pro Val Asn Thr Ile Cys Ile
20 25 30
Gly Gln Ala Ala Ser Met Gly Ser Leu Leu Leu Ala Ala Gly Ala Arg
35 40 45
Gly Glu Arg Arg Ala Leu Pro Asn Ala Arg Val Met Ile His Gln Pro
50 55 60
Ser Gly Gly Ala Gln Gly Gln Ala Thr Asp Ile Ala Ile Gln Ala Lys
65 70 75 80
Glu Ile Leu Lys

<210> 47
<211> 900
<212> DNA
<213> Zea mays

<400> 47
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cgtaactca ccaggggat cccttagcgc aacaatggcc atctatgtatg taatgcagct 120
tgtggggca gacgtgtccatcttggat gggcatagct ggatcaacag ctctataat 180
ccttgggtgtt ggcacacggg gcaacgcatt tgccatggcc aacaccaggat ttatgatcc 240
tcagctgtc ggagggtgcaaa gcgccggcggc cctagatgtatqaaqgtccaaq cqaaggaaqat 300

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<210> 48
<211> 189
<212> PRT
<213> *Zea mays*

<400> 48
His Ala Ser Glu Leu Leu Leu Leu Asp Ala Ile Asp Pro Asp Ser Asp
1 5 10 15

Ile Arg Leu Phe Val Asn Ser Pro Gly Gly Ser Leu Ser Ala Thr Met
20 25 30

Ala Ile Tyr Asp Val Met Gln Leu Val Arg Ala Asp Val Ser Thr Ile
35 40 45

Gly Met Gly Ile Ala Gly Ser Thr Ala Ser Ile Ile Leu Gly Gly Gly
50 55 60

Thr Lys Gly Lys Arg Phe Ala Met Pro Asn Thr Arg Ile Met Ile His
65 70 75 80

Gln Pro Val Gly Gly Ala Ser Gly Gln Ala Leu Asp Val Glu Val Gln
85 90 95

Ala Lys Glu Ile Leu Thr Asn Lys Arg Asn Val Ile Arg Ile Val Ser
100 105 110

Gly The Thr Gly Arg Thr Pro Glu Glu Val Glu Lys Asp Ile Asp Asp Arg
115 120 125

Asp Arg Tyr Asn Gln Pro Leu Glu Ala Val Asp Tyr Gln Leu Ile Asp
130 135 140

145 150 155 160

165 170 175

180 185

<211> 690
<212> DNA
<213> *Oryza sativa*

<400> 49
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 ccatcgccgg ggcgcgggg ccaggccacc gacatcgcca tccaggccaa ggagatttctc 180
 aacgtcgccg accgcctca acaagatcac cagaagcaca ccggccagga gatcgacaag 240
 atcgacgcg acatcgacg cgtatggggcc cgaccccttc atggacccccc aggaggccgc cgatgggggg 300
 ctcatcgacg aggttaattga gaaacccccc ggtccctga taccggggg cgccactggc 360
 gtggacctgc cgaccacag cgccgctggc gtccggggaa gggccagaga tgcgaggag 420
 cccctccgggg tggtagctgt ggccgcggaaatggaaacccct ttctgttccc atggccatgt 480
 tgggtttttt attagatcca aggttcagtt ttatatactac ataaaactaa ttgttattta 540
 ttcaagttgc caattgttat tcaggttgc gatgttgc gtccttaca ttgttcttg 600
 attgcctgaa ttggactact gctgtatattt attgcaaaatc taaggaaattt ttatttcctt 660
 catactgaaa aaaaaaaaaaaaaaaa 690

<210> 50
 <211> 144
 <212> PRT
 <213> Oryza sativa

<400> 50
 Arg Cys Pro Val Thr Thr Leu Cys Ile Gly Gln Ala Ala Ser Met Gly
 1 5 10 15

Ser Leu Leu Leu Ala Ala Gly Ala Arg Gly Glu Arg Arg Ala Leu Pro
 20 25 30

Asn Ala Arg Val Met Ile His Gln Pro Ser Gly Gly Ala Gln Gly Gln
 35 40 45

Ala Thr Asp Ile Ala Ile Gln Ala Lys Glu Ile Leu Lys Leu Arg Asp
 50 55 60

Arg Leu Asn Lys Ile Tyr Gln Lys His Thr Gly Gln Glu Ile Asp Lys
 65 70 75 80

Ile Glu Gln Cys Met Glu Arg Asp Leu Phe Met Asp Pro Glu Glu Ala
 85 90 95

Arg Asp Trp Gly Leu Ile Asp Glu Val Ile Glu Asn Arg Pro Ala Ser
 100 105 110

Leu Ile Pro Glu Gly Ala Thr Gly Val Asp Leu Pro His His Ser Ala
 115 120 125

Ala Gly Val Gly Gly Arg Gly Arg Asp Val Glu Glu Pro Ser Ala Val
 130 135 140

<210> 51
 <211> 874
 <212> DNA
 <213> Glycine max

<400> 51
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 gtgtgtggggc agtggatgtc gatatggca acatcatgt tgctcagtc ctgttacccgt 120
 acgctgttgc ttctaaacaag gatattgtca tgatgtaaatggccggtaa ttctccggga gggccggta 180
 cagctggaaatggctatattt gatacaatgaa ggcataatccg acctgtatgtc ttctactgttt 240
 gtgtggggc agcgtatgtc atggggatgtt ttctgttgc ggcggggaca aaaggaaaga 300
 gatatacgatcc gccaatataca aggtataatgaa ttcatcaacc gcttgggtgt gtcaggag 360
 ggcaaaactgaa catagatattt caggctatgtc aatgtgtca tcataaggca aatctgtatgt 420

gatatctcgc	ctatcacact	ggccaaagt	tagacaagat	caaccaggat	acagaccgtg	480
actttcttcg	gagtgcaaaa	gaaggccat	atgtttggact	gtatcatgtt	gtttccatgt	540
atccctctaa	agcttcccg	ccatggagg	ctgcgcgaga	aggtaaagac	ccggctatgt	600
tttgcacatg	agaatgttgc	actttttttt	ccaaaggttt	aaaaatccata	ttgttttttt	660
tttaaatgtt	tttttttttt	gatggccaa	taattttttt	ttatccatgtt	ttatccatgtt	720
gccccatgtac	caaaaatgt	gccaaattga	tacttttttt	ttatccatgtt	ttatccatgtt	780
gtttttactgt	acagaaagg	ctttttatgg	tttttttttt	tttttttttt	tttttttttt	840
ttttttgtatg	aactggaaaa	aaaaaaaaaa	aaaaaa	aaaaaa	aaaaaa	874

<210> 52
<211> 200
<212> PRT
<213> Glycine max

<400> 52 Thr Arg Glu Arg Phe Gln Ser Val Ile Ser Gln Leu Phe Gln Tyr Arg

Ile Ile Arg Cys Gly Gly Ala Val Asp Asp Asp Met Ala Asn Ile Ile
20 25 30

Val Ala Gln Leu Leu Tyr Leu Asp Ala Val Asp Pro Asn Lys Asp Ile
35 40 45

Val Met Tyr Val Asn Ser Pro Gly Gly Ser Val Thr Ala Gly Met Ala
50 55 60

Ile Phe Asp Thr Met Arg His Ile Arg Pro Asp Val Ser Thr Val Cys
65 70 75 80

Lys Gly Lys Arg Tyr Ser Leu Pro Asn Ser Arg Ile Met Ile His Gln

Pro Leu Gly Gly Ala Gln Gly Gly Gln Thr Asp Ile Asp Ile Gln Ala
115 120 125

Asn Glu Met Leu His His Lys Ala Asn Leu Asn Gly Tyr Leu Ala Tyr
130 135 140

His Thr Gly Gln Ser Leu Asp Lys Ile Asn Gln Asp Thr Asp Arg Asp
145 150 155 160

Phe Phe Met Ser Ala Lys Glu Ala Lys Glu Tyr Gly Leu Ile Asp Gly
165 170 175

Val Ile Met Asn Pro Leu Lys Ala Leu Gln Pro Leu Glu Ala Ala Ala
180 185 190

Glu Gly Lys Asp Arg Ala Ser Val
195 200

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<210> 53
<211> 755
<212> DNA
<213> Triticum aestivum
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<400> 53
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 agtgacgtc gggatggcca tatttgatata aatgaagcat atcaggctg atgtttcgac 180
 agttgtatc ggacttgcg caaagtatgg tgctttcta cttagcggtg ggacgaaaagg 240
 gaagaggatc agcttaccta actcaagaata aatgtatccat cagctcttg gaggagccca 300
 aggacaagag accgacccgtt agatccaggc caatgatgatc ctgaccacaca aggccaaactt 360
 gaaacggatc ctagcatacc acactggca gcccctggat aagatcaatg tagatactga 420
 ccgtgacttc ttcatggcg cgaaggaggc aaaggatata ggcccttattt atggagaata 480
 cgtgaaccct cttaaagcgc tgcaattactc tccagcttcc agttagccat gccgtgcaca 540
 aaatctatgc cgctccaaggc atttttgttg tgatcttcg gatgtgtt ttttgcacgc 600
 tgttttcggtt agtctggcta gatgtttttg taatttcagc ttcttgcacgtt ttccacagggtt 660
 gtacggaaactc gatgcacatac tagaatgttc atcggttgcg gtaagatgtt tgcaacgtgag 720
 tcgacgttgtt ttttgtttaaa aaaaaaaaaa aaaaaa 755

<210> 54

<211> 174

<212> PRT

<213> Triticum aestivum

<400> 54

His Glu Gly Gly Pro Val Glu Asp Asp Met Ala Asn Val Ile Val Ala
 1 5 10 15

Gln Leu Leu Tyr Leu Asp Ala Val Asp Pro Asn Lys Asp Ile Ile Met
 20 25 30

Tyr Val Asn Ser Pro Gly Gly Ser Val Thr Ala Gly Met Ala Ile Phe
 35 40 45

Asp Thr Met Lys His Ile Arg Pro Asp Val Ser Thr Val Cys Ile Gly
 50 55 60

Leu Ala Ala Ser Met Gly Ala Phe Leu Leu Ser Gly Gly Thr Lys Gly
 65 70 75 80

Lys Arg Tyr Ser Leu Pro Asn Ser Arg Ile Met Ile His Gln Pro Leu
 85 90 95

Gly Gly Ala Gln Gly Gln Glu Thr Asp Leu Glu Ile Gln Ala Asn Glu
 100 105 110

Met Leu His His Lys Ala Asn Leu Asn Gly Tyr Leu Ala Tyr His Thr
 115 120 125

Gly Gln Pro Leu Asp Lys Ile Asn Val Asp Thr Asp Arg Asp Phe Phe
 130 135 140

Met Ser Ala Lys Glu Ala Lys Glu Tyr Gly Leu Ile Asp Gly Val Ile
 145 150 155 160

Val Asn Pro Leu Lys Ala Leu Gln Pro Leu Pro Ala Ser Ser
 165 170

<210> 55

<211> 788

<212> DNA

<213> Triticum aestivum

<400> 55
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 acacatcgca gtacatcgcc tgcccgctca acaccatctg categggccag gccgctctca 120
 tgggctccct ctcctcgcc gccggccgccc gccccggag gccccggctg cccaaegcca 180
 gggctatgtat ccacccagccc tccccggggg cccaggggca gccccaccac atcgccatcc 240
 aggccaaatcgca gatactcaag ctgcggcacc gctcaacaa gatctacgcc aagcacacgg 300
 gccagaacat cgacaagatc gacgactgca tggaggctgaa ctttttcatg gaccccgagg 360
 aggcggcgca atgggggctt atagacgagg tcatcgagaa ccggccggcc tcctctatgc 420
 ctgtatggctt cagtggcggtt gaccggcctc accacgggtgg ggggcggccggc gccaaacggcc 480
 gtggcaggga cagggtatgg gaggacccctt ccgcggatgg agggggtggcc agggccacaaa 540
 ggtggaaacct ttttctatgtat ccgggtggctt tgggtttgt tggtagatctt aagttttgtat 600
 tccttaatataca acaggtaaacat ttggtagatctt tcctctatgc ctgaaactgg 660
 ctatggccca tattttatgc aactcgtaaa aaggaatttc gttctttga tactgtatgg 720
 ttgtatgtgt ggtgaatatac agttatacga tcaatttcaa gtcacagcaa aaaaaaaaaa 780
 aaaaaaaaaa 788

<210> 56
 <211> 172
 <212> PRT
 <213> Triticum aestivum

<400> 56
 Ile Ser Leu Tyr Ile Asn Ser Pro Gly Gly Val Val Thr Ala Gly Leu
 1 5 10 15
 Ala Ile Tyr Asp Thr Met Gln Tyr Ile Arg Cys Pro Val Asn Thr Ile
 20 25 30
 Cys Ile Gly Gln Ala Ala Ser Met Gly Ser Leu Leu Leu Ala Ala Gly
 35 40 45
 Ala Arg Gly Glu Arg Arg Ala Leu Pro Asn Ala Arg Val Met Ile His
 50 55 60
 Gln Pro Ser Gly Gly Ala Gln Gly Gln Ala Thr Asp Ile Ala Ile Gln
 65 70 75 80
 Ala Lys Glu Ile Leu Lys Leu Arg Asp Arg Leu Asn Lys Ile Tyr Ala
 85 90 95
 Lys His Thr Gly Gln Asn Ile Asp Lys Ile Glu Gln Cys Met Glu Arg
 100 105 110
 Asp Leu Phe Met Asp Pro Glu Ala Arg Glu Trp Gly Leu Ile Asp
 115 120 125
 Glu Val Ile Glu Asn Arg Pro Ala Ser Leu Met Pro Asp Gly Leu Ser
 130 135 140
 Ala Val Asp Pro Pro His His Gly Gly Ala Gly Ala Asn Gly Arg
 145 150 155 160
 Gly Arg Asp Arg Asp Met Glu Glu Pro Ser Ala Val
 165 170